IN THE CLAIMS:

Please amend the claims as follows.

1-120. (Cancelled)

121. (Currently Amended) A method of treating and drying a substrate, the method comprising ~~the steps of~~:

(a) providing a chamber proportioned to process at least one substrate, the chamber including a lower portion and an upper portion;

(b) exposing at least one substrate to a process fluid in the lower portion of the chamber;

(c) directing megasonic energy into the process fluid,

(d) forming an atmosphere of drying vapor in an upper region in the chamber;

(e) during ~~step~~ (c), withdrawing the substrate from the process fluid in a lower ~~region~~ portion of the chamber into the upper ~~region~~ portion of the chamber.

122. (Currently Amended) The method of claim 121, wherein ~~step~~ (c) forms a band of mega sonic energy propagating towards a surface of the substrate, wherein the withdrawing ~~step~~ causes the substrate to pass through the band, and wherein the megasonic energy induces thinning of a boundary layer on the portion of the substrate passing through the band.

123. (Currently Amended) The method of claim 122, wherein the withdrawing ~~step~~ is performed at a rate of approximately 8-20 mm/sec.

124. (Previously Presented) The method of claim 123, wherein the megasonic energy is propagated in a direction normal to the substrate surface.

125. (Previously Presented) The method of claim 123, wherein the megasonic energy is propagated at an angle that is less than normal to the substrate surface.

126. (Currently Amended) The method of claim 121, further including, after ~~step~~ (e), introducing a heated gas into the chamber to evaporate condensed drying vapor from the surface of the substrate.

127. (Previously Presented) The method of claim 126, wherein the heated gas is introduced through one or more inlets into the chamber, and wherein the method further includes translating the substrate past the inlets to accelerate evaporation.

128. (Currently Amended) The method of claim 121, wherein ~~step~~ (b) includes exposing only one substrate to a process fluid in the lower portion of the chamber.

129. (Previously Presented) The method of claim 121, wherein the process fluid includes deionized water.

130. (Previously Presented) The method of claim 121, wherein the drying vapor includes isopropyl alcohol vapor.

131. (Previously Presented) The method of claim 121, wherein the atmosphere of drying vapor includes nitrogen gas.

132. (Previously Presented) The method of claim 126, wherein the gas is nitrogen gas.

133. (Previously Presented) The method of claim 121, wherein the megasonic energy induces thinning of a boundary layer on the substrate.

134. (Currently Amended) An apparatus for treating and drying a substrate, the apparatus comprising:

a chamber proportioned to process at least one substrate, the chamber including a lower portion and an upper portion;

a source of a process fluid fluidly coupled to the lower portion of the chamber;

a source of drying vapor fluidly coupled to an upper portion of the chamber~~, to create~~ configured to provide an atmosphere of drying vapor in the upper portion;

an end effector having a substrate-receiving member moveable between the lower portion of the chamber and the upper portion of the chamber, ~~said~~ the end effector operable to withdraw a substrate from process fluid in the lower portion into the atmosphere of drying vapor in the upper portion; and

a megasonic transducer positioned to direct megasonic energy into process fluid in the chamber.

135. (Currently Amended) The apparatus of claim 134, wherein the transducer is positioned to form a band of megasonic energy propagating towards a surface of the substrate, wherein the end effector is positioned to move the substrate through the band, and wherein the megasonic energy induces thinning of a fluid boundary layer on ~~the~~ a portion of the substrate passing through the band.

136. (Currently Amended) The apparatus of claim ~~134~~ 135, wherein the end effector is configured to withdraw the substrate through the band at a rate of approximately 8–20 mm/sec.

137. (Previously Presented) The apparatus of claim 134, wherein the megasonic transducer is oriented to propagate energy in a direction normal to the substrate surface.

138. (Previously Presented) The method of claim 134, wherein the megasonic transducer is oriented to propagate energy at an angle that is less than normal to the substrate surface.

139. (Currently Amended) The apparatus of claim 134, further including a source of heated gas fluidly coupled to the chamber to volatilize ~~condensed drying vapor~~ fluid from a surface of a substrate.

140. (Previously Presented) The apparatus of claim 139, further including one or more inlets in the chamber for introduction of the heated gas into the chamber, and an end effector having a substrate-receiving portion moveable to translate a substrate past the inlets to accelerate evaporation.

141. (Currently Amended) The apparatus of claim 134, wherein the drying vapor ~~includes~~ comprises isopropyl alcohol.

142. (Currently Amended) The apparatus of claim 134, ~~wherein the apparatus includes a system, the chamber forming a part of the system, and wherein the apparatus further includes means~~ further comprising a vapor exhaust system for exhausting drying vapor from the system.

143. (Currently Amended) The apparatus of claim 134, wherein the process fluid ~~includes~~ comprises deionized water.

144. (Previously Presented) The apparatus of claim 134, wherein the chamber is proportioned to process only one substrate at a time.

145. (Currently Amended) The apparatus of claim 134, wherein the transducer is positioned such that megasonic energy induces thinning of a fluid boundary layer on the substrate as the substrate is moved from the process fluid into the atmosphere of drying vapor.